Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Presently amended): Cardiac laser surgery apparatus comprising

a sealed CO_2 slab laser, said slab laser including two narrowly spaced electrodes having opposed planar surfaces and a rectangular discharge region defined between said opposed planar surfaces of said two narrowly spaced electrodes, said laser providing pulses of adjustable length in time so as to provide energy of between 8 and 80 Joules per pulse, and

a laser delivery system for delivering laser pulses from said laser to a patient's heart.

2. (Original): The apparatus of claim 1 wherein said laser delivery system includes a hand piece for delivering pulses to the outside of a patient's heart to provide openings in the patient's heart for myocardial revascularization.

3. (Presently amended): The apparatus of claim 1 wherein said pulses are shorter than 100 ms [[and provide energy of between 8 and 80 Joules per pulse]].

4. (Original): The apparatus of claim 1 wherein said laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia.

5. (Original): The apparatus of claim 4 wherein said laser starts firing on the R wave and stops before the T wave.

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6. (Original): A method of cardiac laser surgery comprising operating a CO_2 slab laser to output laser pulses, and delivering said laser pulses to a patient's heart.

7. (Original): The method of claim 6 wherein said delivering provides openings in the patient's heart for myocardial revascularization.

8. (Original): The method of claim 6 wherein said pulses are shorter than 100 ms and provide energy of between 8 and 80 Joules per pulse.

9. (Original): The method of claim 6 wherein said laser delivery system is synchronized to the heart beat to fire when the heart is electrically insensitive to reduce the chance of arrhythmia.

10. (Original): The method of claim 9 wherein said laser starts firing on the R wave and stops before the T wave.

Claims 11-71 (Cancelled)

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